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(74) Agent: VAN SOMEREN, Petronella, Francisca, Hendrika, Maria; Arnold & Siedsma, Sweelinckplein 1, NL-2517 GK The Hague (NL).

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(71) Applicant (for all designated States except US): UNIVERSITEIT TWENTE [NL/NL]; Drienerloolaan 5, NL-7522 NB Enschede (NL).

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(54) Title: BIOCOMPATIBLE POLYMER NETWORKS

(57) **Abstract:** The present invention relates to functionalized prepolymers and to biocompatible polymer networks, especially biodegradable polymer networks obtainable by polymerization of the functionalized prepolymers by for example ultraviolet (UV), redox, and/or heat radical polymerization. Functionalized prepolymers (macromers) are obtainable by reaction of a prepolymer comprising at least one alcohol, amine, and/or sulfhydryl group, with an unsaturated monoesterified dicarboxylic acid, especially fumaric acid monoethyl ester.